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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/901,441	07/09/2001	Claude Galand	FR920000009US1	7705

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IBM CORPORATION
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EXAMINER	
CHO, HONG SOL	

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 02/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/901,441	GALAND ET AL.	
	Examiner	Art Unit	
	Hong Cho	2662	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2 and 5- 7* is/are rejected.

7)☒ Claim(s) *3,4,8 and 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *09 July 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *04192004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it includes the title of the invention.

Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 1, 3 and 4 are objected to because of the following informalities:

Re claim 1, a first and a second sub-area network should be a backbone sub-area network.

Re claim 3, a sub-area network should be a backbone sub-area network.

Re claim 4, it should be dependent on claim 3.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102(e) that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(e) as being unpatentable over Kalmanek et al (U.S 6711152), hereinafter referred to as Kalmanek.

Re claims 1, 2 and 5, Kalmanek discloses an autonomous system communication in OSPF routing network (column 2, line 66 to column 3, line10; figure 12). Kalmanek discloses a first splitting router (R4, element 1224, figure 12) having a first topological database (column 3, lines 13-17) within the first sub-area network (elements 1224 and 1225, figure 12) and a second splitting router (R4, element 1224, figure 12) having a second topological database (column 3, lines 13-17) within the second sub-area network (elements 1228 and 1229, figure 12). Kalmanek discloses a link between the first splitting router and the second splitting router (red path between R4 and R8 in figure 12). Routers in the backbone area receive link state advertisement (LSA) packets (*allow passage of link-state message over the link connecting the first splitting router and the second splitting router*, column 14, lines 38-40). Kalmanek discloses routing data traffic through shortcut (shown in figure 12 by dotted line) between R3 and R6 (*block from passage over the link connecting the first splitting router and the second splitting router*). Re claim 2, Kalmanek discloses a link between the first splitting router and the second splitting router as an element of a backbone (red path between R4 and R8 in figure 12). Re claim 6, it is inherent that bandwidth is used to calculate link cost in OSPF network (cost = 10^8/BW).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kalmanek in view of Feldmann.

Re claim 7, Kalmanek fails to teach filtering packets based on type of service field. However, Feldman discloses configuring routers with a wide range of parameters that relate to resource allocation (e.g., link bandwidth and buffers), routing protocols (e.g., BGP policies and OSPF weights), and access control (e.g., packet filters) (paragraph [0002]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to implement Kalmanek with the function of packet filtering based on type of service as taught by Feldmann. The motivation to combine is to use access control in denying a certain type of network packets from crossing a particular link.

Allowable Subject Matter

7. Claims 3 and 4 are allowable if rewritten or amended to overcome the objection(s) as stated above.

8. Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is an examiner's statement for reasons for allowance.

9. Claim 3 is allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest a splitting router comprising a splitting router packet processing unit, a router packet processing unit and a buffer for buffering messages output by the splitting router packet processing unit and the router packet processing unit. It is noted that the closest prior art of record, Kalmanek shows a method of receiving and processing hello messages to converge link state database. However, Takei fails to suggest buffering messages output by the splitting router packet processing unit and the router packet processing unit as required by the claimed invention.

Claims 8 and 9 are allowable over the prior art of record since the cited references taken individually or in combination fail to particularly teach or fairly suggest a routing method of configuring one metric in a topological database by increasing the measure of round-trip delay experienced by a ping message when the ping message is exchanged between the first splitting router and the second splitting router. It is noted that the closest prior art of record, Feldmann shows a method of configuring routers with a wide range of parameters. However, Feldman fails to suggest increasing the measure of round-trip delay experienced by a ping message when the ping message is exchanged between the first splitting router and the second splitting router as required by the claimed invention.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent (6823395) to Adolfsson discloses arrangement and method relating to routing in a network
- US 2003/0046390 to Ball et al. discloses constructing multi-layer topological models
- US 2002/0060986 to Fukushima et al. discloses router device having a redundant configuration

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hong Cho whose telephone number is 571-272-3087. The examiner can normally be reached on Mon-Fri during 7 am to 4 pm.
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 571-272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3088.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hong Cho
Patent Examiner
2-8-2005

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